BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 2007- -

Application of Duke Energy Carolinas, LLC	)	
for Approval of Energy Efficiency Plan	)	DUKE ENERGY CAROLINAS'
Including an Energy Efficiency Rider and	)	ENERGY EFFICIENCY PLAN
Portfolio of Energy Efficiency Programs	)	

INTRODUCTION AND SUMMARY

In response to the rising demand for electricity, increasing concern around environmental issues such as Global Climate Change, and to provide customers with programs and services that will help them manage their electric bill in a rising cost environment, Duke Energy Carolinas proposes a new and innovative energy efficiency plan for its South Carolina retail customers that will produce significant energy savings for customers. Duke Energy Carolinas, LLC ("Duke Energy Carolinas" or the "Company") hereby requests approval of (i) a new regulatory approach to energy efficiency and demand response programs[1], (ii) an energy efficiency rider to implement the approach for Company-sponsored energy efficiency programs, and (iii) a portfolio of energy efficiency programs as described in this application ("the Application") and more

[1] The term "energy efficiency," as used in this application, includes both energy efficiency/conservation and demand response measures.

fully set forth in Attachment A. The new regulatory approach, the energy efficiency rider, and the portfolio of energy efficiency programs are collectively referred to as the Energy Efficiency Plan.

Duke Energy recognizes energy efficiency as a reliable, valuable resource, that is, a “fifth fuel,” that should be part of the portfolio available to meet customers’ growing need for electricity along with coal, nuclear, natural gas, and renewable energy. Under its Energy Efficiency Plan, the Company proposes that energy efficiency be treated as a virtual generating plant. Instead of being made of iron in the ground, energy efficiency plants are made up of energy efficiency programs that meet customers’ needs by saving watts instead of making watts. This emissions-free resource helps customers meet their energy needs with less electricity, less cost and less environmental impact.

The Company’s proposed new approach to energy efficiency fundamentally changes both the way energy efficiency is perceived and the role of the Company in achieving such energy efficiency. Duke Energy Carolinas has the expertise, infrastructure and customer relationships to produce cost-effective energy efficiency and make it a significant part of its resource mix. Initially, the Company proposes to focus on offering customers programs that will help them address rising energy prices now. These offers are being developed with direct input from our customers. The offers will use new channels that are more convenient for our customers and combine individual programs to provide value from our customer’s perspective. Ultimately, as part of its Energy Efficiency Plan, the Company intends to build energy efficiency into its service offerings to make it part of everyday life without having customers sacrifice the comfort and convenience they enjoy from their use of electricity.

While the Company believes it can significantly increase the amount of energy savings achieved through this new approach, pursuing energy efficiency initiatives will not meet all our growing demands for electricity. To address the 3400 megawatts ("MWs") needed by 2012 to serve all customers on its system, the Company will still need to build electric generation facilities or purchase power at wholesale. Duke Energy Carolinas' Energy Efficiency Plan, nevertheless, can address a significant portion of this need by producing over 1860 MWs of capacity and 743,000 MWhs of energy in its South Carolina and North Carolina service territories over the next four years. [2]

To compensate and encourage the Company to produce such capacity and energy by "saving" watts, Duke Energy Carolinas requests that it be compensated through the amortization of and a return on 90% of the costs avoided by saving watts. Not only will this produce automatic savings for customers but customers will only pay for capacity and energy savings actually realized by the Company. In other words, customers will not pay for energy savings that the Company does not achieve.

The Company will update the Energy Efficiency Plan annually based on the performance of programs, market conditions, economics, consumer demand and avoided costs. The results and associated revenue requirements of the Company's initial 4-year plan are summarized in the following table:

4-year Energy Efficiency Plan Projected Results (NC and SC)

	YEAR 1	YEAR 2	YEAR 3	YEAR 4
Cumulative System MW	961	1214	1423	1865
Cumulative System MWh	180,000	380,000	552,000	743,000
SC Retail Revenue Requirements ($MM)	$21	$28	$33	$43

[2] This proposal also includes replacement of 700 MWs of existing energy efficiency programs with new programs.

Duke Energy Carolinas requests that the Commission approve an energy efficiency rider ("Rider EE") (as more fully described in Attachment B) that will compensate the Company for delivering verified energy efficiency results. The Company also seeks approval for the first year Rider EE charge (including the appropriate revenue related taxes) of 0.1110 cents per kWh for residential customers and 0.0892 cents per kWh for non-residential customers. Under the Company's proposal, the Commission will adjust Rider EE annually, based on updated projections of results, including projected incremental avoided costs, and actual results achieved by the Company. This process will ensure that customers only pay for capacity and energy savings actually realized by the Company. Therefore, for example, if the Company estimates that it will achieve 1800MW of energy efficiency but only achieves 1500MW of savings, Rider EE will be adjusted to allow Duke Energy Carolinas to be compensated for the 1500MW achieved.

The Company's Energy Efficiency Plan is reasonable, necessary, and in the public interest. The Company's most recent Integrated Resource Plans ("IRPs") show that Duke Energy Carolinas faces growing customer demands for electricity. As previously noted, the Company projects a capacity need of as much as 3,400 MWs of new capacity by the year 2012. This need arises from a combination of factors, including: (i) growing demand for electricity, (ii) the planned retirement of Cliffside Units 1 through 4, (iii) the contemplated retirement of an equivalent amount of capacity up to 800 MWs of older coal units as new energy efficiency capacity impacts are achieved system-wide, and (iv) the proposed closure of the Company's existing energy efficiency programs.[3]

Duke Energy Carolinas' Energy Efficiency Plan is designed to expand the reach of energy efficiency programs in its South Carolina retail service territory, by providing the Company with appropriate regulatory incentives to aggressively pursue such expansion. The proposed regulatory treatment enables the Company to meet a portion of its substantial near-term capacity resource needs on a cost-effective basis, while at the same time reducing overall air emissions. Further, customers will be provided more options to manage their energy bills. Over the long term, the regulatory treatment proposed by the Company should encourage the Company to pursue additional energy efficiency initiatives, further offsetting capacity needs.

The Company requests flexibility to make program changes and reallocate approved resources among programs over the lives of the programs to optimize results. This flexibility is crucial to the success of the undertaking, particularly given the innovative nature of the effort and the need to make timely and responsive changes as the Company gains experience working with customers and third party suppliers. Such flexibility would not prejudice customers in any way as the Company is only compensated on results achieved and not on dollars spent.

In sum, the new approach to save watts will benefit Duke Energy Carolinas' customers, the public, and the Company, by:

- Allowing for the treatment of energy efficiency as a "fifth fuel;"
- Displacing a portion of the electricity otherwise needed to meet its customers' energy requirements with zero air emissions, thereby reducing

[3] Duke Energy Carolinas has incorporated certain elements of existing programs in its proposed portfolio of programs.

the amount of new generation that would otherwise be required and the risks associated with the regulation of greenhouse gas emissions;

- Lowering bills for customers on average, compared to the bills that would result from additional generation resources;

- Providing more choices and options that help customers manage their bills in a rising energy price environment;

- Rewarding customers who participate in energy efficiency with substantially lower bills;

Providing customers the opportunity to lower their environmental footprint through direct participation in energy efficiency;

- Creating new energy efficiency service jobs in order to implement energy efficiency programs; and

- Providing the Company with an incentive to make significant, sustainable investments in energy efficiency and rewarding the Company for results produced and risks taken.

In support of this Application, Duke Energy Carolinas respectfully states the following:

1. **Name and Address of Duke Energy Carolinas**

The name and mailing address of Duke Energy Carolinas

Duke Energy Carolinas, LLC
P O Box 1006
Charlotte, North Carolina 28201-1006

2. **Notices and Communications**

The names and addresses of Duke Energy Carolinas' attorneys are:

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Copies of all pleadings, orders, testimony and correspondence in this proceeding should be served on the attorneys listed above.

3. **Description of Duke Energy Carolinas**

Duke Energy Carolinas is a limited liability company duly organized and existing under the laws of the State of North Carolina. Duke Energy Carolinas is authorized by its Articles of Organization to engage in the business of generating, transmitting, distributing and selling electric power and energy. It is a public utility under the laws of the State of South Carolina, and in its operations in this State is subject to the jurisdiction of this Commission. It is also a public utility under the laws of the State of North Carolina, and its operations in that state are subject to the jurisdiction of the North Carolina Utilities Commission. It is a public utility under the Federal Power Act, and certain of its operations are subject to the jurisdiction of the Federal Energy Regulatory Commission ("FERC").

DUKE ENERGY CAROLINAS' COMMITMENT TO SIGNIFICANTLY EXPAND THE REACH OF ENERGY EFFICIENCY

4. Duke Energy Corporation CEO and President Jim Rogers has publicly committed that Duke Energy Carolinas would invest, on an annual basis, 1% of its annual retail revenues from the sale of electricity in energy efficiency programs subject to appropriate regulatory treatment of the Company's energy efficiency investments.

5. In keeping with its commitment, the Company will invest at least one percent of its annual South Carolina total retail revenues in a newly designed portfolio of energy efficiency programs. This amount is substantial. For example, 1% of South Carolina jurisdictional retail revenues for 2006 is about $12 million. The proposed programs are:

RESIDENTIAL CUSTOMER PROGRAMS

- Residential Energy Assessments
- Smart $aver® for Residential Customers
- Low Income Services
- Energy Efficiency Education Program for Schools
- Power Manager

NON-RESIDENTIAL CUSTOMER PROGRAMS

- Non-Residential Energy Assessments
- Smart $aver® for Non-Residential Customers
- Power Share®

RESEARCH PILOT PROGRAMS

- Efficiency Savings Plan

- Advanced Power Manager Program

A detailed description of each program is provided in Attachment A.

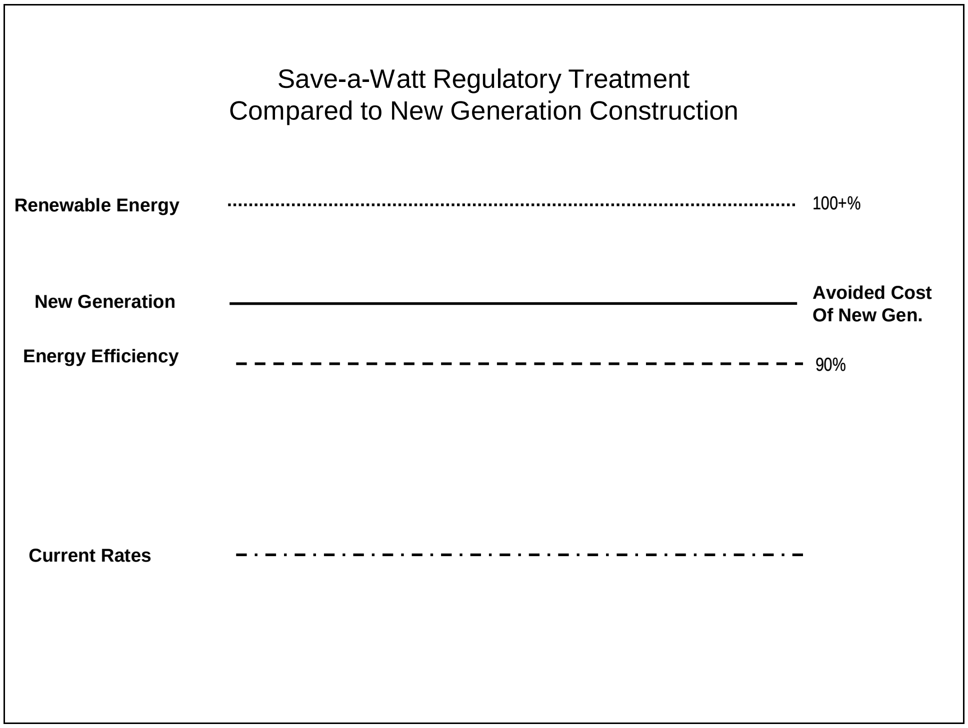
6. The Company developed this portfolio of programs in collaboration with interested stakeholders participating in the Company's South Carolina Energy Efficiency Collaborative Group ("Collaborative"). The Collaborative includes a diverse group of customers, state agencies, environmental groups, and other stakeholders. Participants in the Collaborative include The South Carolina Office of Regulatory Staff, The Timken Corporation, Sierra Club, Environmental Edge Consulting, The University of South Carolina Upstate, Greenville County Schools, and the South Carolina State Energy Office. Advanced Energy Corporation moderates each meeting of the Collaborative.

7. The Company employed a three-step process to determine the programs to be included in the proposed portfolio. First, it compiled a list of energy efficiency programs that it is currently offering in South Carolina and North Carolina, as well as those offered in Ohio, Kentucky, and Indiana by its affiliate utilities. Implementing programs already offered by the Company's affiliates is likely to result in lower costs and operational efficiency through shared administration and best practices. Second, the Company solicited new program ideas from all members of the Collaborative and solicited direct input from South Carolina customers Carolina in focus groups. Third, the Company refined these ideas, applying multiple cost-effectiveness analyses to evaluate all current or proposed programs. Programs deemed cost-effective were incorporated into a master list of program ideas, reviewed by the Collaborative members, and finally consolidated into the list of energy efficiency programs included in the portfolio.

8. Duke Energy Carolinas proposes to review and adjust programs and overall portfolio funding levels on an annual basis. Any changes will be based on the performance of the portfolio, market conditions, economics, and consumer demand. The Company will report annually to the Commission on significant portfolio changes, , proposed new programs, and program evaluation results. The Company, however, requests authority to increase its investment in the portfolio beyond the previously committed 1% of retail revenues and that additional spending be granted the same regulatory treatment as the initial investment without specific Commission approval, provided the Company can demonstrate such additional investments will be cost-beneficial for its customers.

THE ENERGY EFFICIENCY PLAN IS IN THE PUBLIC INTEREST

9. The Energy Efficiency Plan is designed to produce energy and demand savings to help meet the Company's load obligations at an overall cost that is lower to customers than comparable supply-side investments as demonstrated in the chart below. New generation necessary to meet customers' increasing demand will place upward pressure on current electricity rates. The proposed energy efficiency portfolio with the proposed regulatory treatment is offered at a lower cost to new generation and thus results in lower costs to customers than they would experience if Duke Energy Carolinas built new generation:



10. The Energy Efficiency Plan will encourage and compensate the utility for investments in energy efficiency at 90% of the avoided supply-side costs. Under traditional regulation, a utility is allowed to recover the depreciation and operating costs for a new plant and also earn a return on the un-depreciated plant. Under the Energy Efficiency Plan, the utility would be allowed to recover 90% of the depreciation and operating costs avoided by not building the new plant and also earn a return. Accordingly, customers will realize lower costs compared to the rates resulting from the addition of new generating capacity. The level of avoided costs will be determined consistent with the method approved by the Commission in its most recent proceedings setting avoided costs for the Company. *See* <u>IN RE: Proceeding for Approval of PURPA Avoided Cost Rates for Electric Companies</u>, Docket No. 95-1192-E, Order Approving Revised Schedule PP (SC), Order No. 2007-591 (August 23, 2007), and Order Ruling on

Petitions, Order No. 96-570 (August 28, 1996). This treatment is critical to the necessary expansion of energy efficiency to offset society's continually increasing demand for electricity in a more environmentally-friendly way.

11. The Company assumes some risk in the proposed approach to save watts. Revenues collected through the proposed energy efficiency rider are expected to cover program costs but will be based on actual efficiency results achieved. The Energy Efficiency Plan provides incentives to the Company to keep costs low and results high. The Company is encouraged to expand energy efficiency programs by managing the costs of those programs and developing new, innovative offers that customers will value.

12. Accordingly, Duke Energy Carolinas seeks approval to implement a rate recovery mechanism described more fully in Attachment B. The proposed Rider EE will be applied to all South Carolina retail rate schedules. As described in Attachment B, Rider EE will provide for a per kWh charge determined separately for residential and non-residential customers. Further, Rider EE will be subject to annual adjustments – allowing for increases or decreases depending on the updated projections of capacity and energy (megawatt and megawatt hour) reductions and actual reductions for previous years as verified -- thereby ensuring that customers pay only for verified energy efficiency savings results.[4]

13. Approval of Duke Energy Carolinas' Energy Efficiency Plan, including the proposed regulatory treatment would encourage the aggressive pursuit of energy efficiency consistent with the South Carolina Energy Conservation and Efficiency Act of 1992 ("SCECEA"), Section 58-37-10 to -40 of the South Carolina Code Annotated

[4] See Attachment C for estimated timeframes for evaluation results. The true-up of Rider EE will be based on these results. Sufficient time must elapse for any meaningful measurement and evaluations to occur. Accordingly, true-up results may lag by about three years.

(Cum. Supp. 2003) ("S.C. Code Ann."). Specifically, Section 58-37-20 of the SCECEA provides, in part, that

> The South Carolina Public Service Commission may adopt procedures that encourage electrical utilities and public utilities providing gas services subject to the jurisdiction of the commission to invest in cost-effective energy efficient technologies and energy conservation programs. If adopted, these procedures must: provide incentives and cost recovery for energy suppliers and distributors who invest in energy supply and end-use technologies that are cost-effective, environmentally acceptable, and reduce energy consumption or demand; allow energy suppliers and distributors to recover costs and obtain a reasonable rate of return on their investment in qualified demand-side management programs sufficient to make these programs at least as financially attractive as construction of new generating facilities; *require the Public Service Commission to establish rates and charges that ensure that the net income of an electrical or gas utility regulated by the commission after implementation of specific cost-effective energy conservation measures is at least as high as the net income would have been if the energy conservation measures had not been implemented.* For purposes of this section only, the term "demand-side activity" means a program conducted by an electrical utility or public utility providing gas services for the reduction or more efficient use of energy requirements of the utility or its customers including, but not limited to, utility transmission and distribution system efficiency, customer conservation and efficiency, load management, cogeneration and renewable energy technologies. (Emphasis added).

Approval of this Application is within the Commission's broad statutory ratemaking authority. *E.g,* S.C. Code Ann. §58-3-140A ("The Public Service Commission is vested with power and jurisdiction to supervise and regulate the rates and service of every public utility in this state."). Further, the South Carolina courts have generally interpreted the rate making statutes as giving the Commission considerable latitude in the exercise of its ratemaking authority. *See, e.g.*, *Nucor Steel, a Division of Nucor Corporation v. South Carolina Public Service Commission*, 312 S.C. 79, 85, 439 S.E. 2d 270, 273 (1994).

EVALUATION AND VERIFICATION OF RESULTS

14. The Company proposes third-party verification of the impacts achieved from its energy efficiency programs. The Company has developed a comprehensive plan for verifying megawatt and megawatt-hour savings using the services of independent third parties. Such evaluation will enable the Company, the Commission, and other interested stakeholders to quantify the energy and demand savings produced by these programs, as well as to identify the most effective programs and to design improvements for programs over time. Approximately 5% of the overall portfolio budget is earmarked for program evaluation. These evaluation costs are consistent with the industry standard of 3-5%. The Company's comprehensive plan for verifying actual megawatt and megawatt-hour savings is included as Attachment C.

EXISTING PROGRAMS AND COST RECOVERY PLAN

15. In connection with the implementation of the proposed portfolio of energy efficiency programs, the Company requests approval to close certain existing demand response riders to new customers and, with appropriate notice, transition existing customers to similar programs included in this proposal. The affected riders are: Interruptible Service Rider (Rider IS), Standby Generation Control Rider (Rider SG), and Residential Load Control Rider (Rider LC). Customers will be notified about the change in product offerings and may sign up for any new offerings as they are available. The Company also requests approval to close the existing Residential Housing Program (Leaf 142).

16. The Company requests Commission approval of the recovery mechanism proposed as part of its Energy Efficiency Plan in lieu of the deferred account cost

recovery mechanism approved by the Commission for past DSM programs implemented by the Company. In the Company's most recent general rate case proceeding (Docket No. 91-216-E), the Commission approved a deferred account process with carrying cost coverage and subsequent cost of service amortization for DSM cost recovery. Specifically, the Commission approved a Stipulation between the Company, the S. C. Department of Consumer Affairs, and the Commission Staff allowing for the deferral of certain DSM expenses above the 1990 test year level included in rates and the addition to the deferred balance of carrying costs on the balance as calculated monthly. The recovery of the balance in the deferred account was to be addressed in a subsequent general rate case proceeding. The Commission reaffirmed its approval of this cost recovery mechanism in Order No. 93-8, Docket No. 92-208-E. As of June 30, 2007, the balance of the deferred account was $(86,864,237).

ACCOUNTING AND REPORTING

17. To implement the proposed approach to energy efficiency, Duke Energy Carolinas also requests the Commission grant authority for the Company to defer certain program costs and to amortize them over the life of the applicable program, with an acknowledgment that the revenues established in Rider EE, which are based on avoided costs, specifically include the recovery of incurred program costs. The Company seeks to defer costs it will incur in one period but which relate to benefits received in multiple periods. Such costs include the upfront development costs incurred prior to the implementation of the programs such as for program design, development of training materials, development of communication and advertising materials. They also include one time incentives paid upfront for the installation of energy efficiency measures or

equipment such as heat pumps. Costs incurred after a program is implemented, such as program administration costs and credits to customers who participate in demand response programs will be expensed as incurred. Such costs are incurred routinely and amounts paid in any year relate to the benefits derived from those programs in the same year.

18. To ensure the Company retains the incentive to aggressively pursue energy efficiency, Duke Energy Carolinas requests Commission approval to reflect the impacts of the proposed regulatory treatment in its Quarterly Reports as follows: the Company will include (i) revenues earned through Rider EE, (ii) the greater of 90% of the avoided generation costs as calculated in Rider EE, or actual program costs incurred, and (iii) the avoided cost investment on which the EE revenues are based. In all events, actual program costs will be included for information purposes as a footnote in the Reports.

RETIREMENT OF OLD COAL PLANTS

19. Consistent with its continuing efforts to modernize its generation fleet and to address anticipated regulation of the emission of greenhouse gases, Duke Energy Carolinas will retire on a MW per MW basis its older coal-fired generating units, to the extent that capacity savings are achieved under its Energy Efficiency Plan and considering the impact on the reliability of its entire system. As system wide energy efficiency savings are verified, Duke Energy Carolinas will file with the Commission a proposal as to how to implement such plant retirements.

REQUEST FOR HEARING

20. Duke Energy Carolinas respectfully requests that the Commission review this Application and issue an order that, among other things, establishes a procedural schedule

for testimonies by the Company, Office of Regulatory Staff, and any intervenors, and a hearing to be held as soon as possible. The Company believes there will be significant interest in its proposals and welcomes an opportunity to provide any additional information the Commission may require.

CONCLUSION

21. In summary, the Company's proposal to save watts is a new approach to energy efficiency that fundamentally changes its incentives and role in energy efficiency. With this new approach, Duke Energy Carolinas will be rewarded for results achieved. Duke Energy Carolinas' proposal is designed to expand energy efficiency programs in its South Carolina retail service territory. The proposed energy efficiency portfolio will enable the Company to meet a portion of its capacity resource needs in a cost-effective manner, and also avoid air emissions, including greenhouse gas emissions. It also enables the Company to provide customers with more options to manage their energy bills in a rising cost environment.

22. Duke Energy Carolinas anticipates implementation of many of the proposed programs may take at least six months after approval, and therefore respectfully requests approval in time to allow customers to begin to benefit from the programs as soon as possible.

23. As part of this Application, Duke Energy Carolinas submits the following attachments:

Attachment A.	Detailed description of the Company's portfolio of proposed energy efficiency programs
Attachment B.	Detailed description of the Company's proposed energy efficiency rider mechanism.

Attachment C.	The Company's comprehensive plan for verifying megawatt and megawatt-hour savings.

WHEREFORE Duke Energy Carolinas respectfully requests that the Commission, after hearing, issue an order approving (1) the implementation of the proposed Energy Efficiency Plan as outlined in this Application; (2) the portfolio of energy efficiency offerings as proposed in Attachment A; (3) the implementation of Rider EE as proposed in Attachment B, including the proposed charges for customers; (4) the Company's deferral of certain program costs and amortization of such costs over the life of the applicable program, with an acknowledgment that the revenues established in Rider EE based on avoided costs specifically include the recovery of incurred program costs; (5) the closing of the Interruptible Service Rider (Rider IS), Standby Generation Control Rider (Rider SG), Residential Load Control Rider (Rider LC), and Residential Housing Program; and (6) the proposed manner of accounting for the impacts of the Energy Efficiency Plan in future Quarterly Reports.

Respectfully submitted this the _28th__ day of September, 2007.

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ATTORNEYS FOR DUKE ENERGY CAROLINAS, LLC

CERTIFICATE OF SERVICE

DOCKET NO. 2007-_______

I certify that a copy of the foregoing Application was sent by regular U.S. mail or overnight mail to the persons listed below this 28th day of September, 2007.

Dan F. Arnett, Chief of Staff
Office of Regulatory Staff
Post Office Box 11263
Columbia, South Carolina 29211

Florence P. Belser, General Counsel
Nanette Edwards, Deputy General Counsel
Office of Regulatory Staff
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This the 28th day of September, 2007.

Robinson, McFadden & Moore, P.C.

s/ Frank R. Ellerbe, III___________________
Frank R. Ellerbe, III

ATTACHMENT A

DUKE ENERGY CAROLINAS' APPROACH TO THE MARKET

Duke Energy Carolinas intends to offer certain traditional conservation and demand response programs to its customers. Conservation results mainly from equipment upgrades and demand response results from controlling customer load during peak periods. To produce the results forecasted in our plan, the Company has developed a customer-focused approach to the market that leverages new technology and an extensive third-party vendor network.

The Company intends to develop and deliver offers that customers value. In a state such as South Carolina where rates are 38 % below the national average, customers are unlikely to sacrifice comfort and convenience to participate in energy efficiency. In addition, the initial capital outlay associated with some programs could be a significant barrier to customer participation. The Company's primary research, including input from focus groups and the Company's South Carolina Energy Efficiency Collaborative, helped shape the initial portfolio of programs which includes two research programs that specifically address the customer feedback items mentioned above. The portfolio of programs and the offers made to customers will change as the Company gains experience in the market. Learning from customers through direct market experience and adapting the Company's programs in response to customer feedback are the best way to achieve the energy efficiency plan described in the Application. Additionally, the Company believes it can obtain greater participation and deliver higher-quality programs by understanding the customer buying cycle and making personal and proactive offers at the appropriate time. Ultimately, Duke Energy Carolinas intends to redefine the Company's standard service offer to include energy efficiency.

PROGRAM DESCRIPTIONS

Residential Energy Assessments

Program: This program will assist residential customers in assessing their energy usage and provide recommendations for more efficient use of energy in their homes. The program will also help identify those customers who could benefit most by investing in new energy efficiency measures, undertaking more energy efficient practices and participating in Duke Energy Carolinas programs. The types of available energy assessments and energy efficiency products are as follows:

- Mail-in Analysis. The customer provides information about their home, number of occupants, equipment, and energy usage on a mailed energy profile survey, from which Duke Energy Carolinas will perform an energy use analysis and provide a Personalized Home Energy Report including specific energy saving recommendations.
- Online Analysis. The customer provides information about their home, number of occupants, energy usage and equipment through an online energy profile survey. Duke Energy Carolinas will provide an Online Home Energy Audit including specific energy saving recommendations.
- On-site Audit and Analysis. Duke Energy Carolinas will perform one on-site assessment of an owner-occupied home and its energy efficiency-related features during the life of this program.
- Low-Income Multi-Family Assessment Pilot. Duke Energy Carolinas will select property managers to coordinate communication and scheduling of property audits with tenants. Assessments will focus primarily on building envelope and HVAC.

Eligibility: Available to individually metered residential customers receiving concurrent service from the Company. On-site assessments are only available to owner-occupied single family residences.
For the pilot program, assessments are only available to customers in low-income multi-family complexes.

Customer Incentive: The assessment is free to the consumer. Participants receive either an energy efficiency kit or six-pack of compact fluorescent light bulbs ("CFLs") at the time of the audit to begin their energy savings immediately. Customers will receive an energy efficiency kit and property managers will receive a report with findings and recommendations in the pilot program.

Marketing: Residential assessments may be marketed by several means, including but not limited to, direct-mail offers to customers, bill inserts, e-mail, and promotion on Duke Energy's Web site. The pilot program will be marketed to complexes selected by Duke Energy Carolinas after consultation with applicable State entities and local HUD offices.

Delivery Organization(s): Vendors that will be chosen through a competitive bid process.

Smart $aver for Residential Customers

Program: The Smart $aver® Program will provide incentives to residential customers who purchase energy efficient equipment. The program has two components – compact fluorescent light bulbs and high-efficiency HVAC equipment

<u>Residential Compact Fluorescent Light Bulbs ("CFLs") Incentive Program</u>
This program will provide market incentives to customers and market support to retailers to promote use of CFLs. Special incentives to buyers and in-store support will increase demand for the products, spur store participation, and increase availability of CFLs to customers. Part of this program is to educate customers on the advantages (functionality and savings) of CFLs so that they will continue to purchase these bulbs in the future when no direct incentive is available.

Eligibility: All Duke Energy Carolinas residential customers in Duke Energy Carolinas' South Carolina service area are eligible to participate in the program.

Customer Incentive: Customers may be offered coupons or a discounted price for the purchase of CFLs.

Marketing: Marketing support will include point-of-purchase displays and materials, cooperative advertising, coupons, special "instant sales events" as appropriate, promotion through Duke Energy Carolinas bills, promotion on the Company's Web site, direct mail and media advertising to make customers aware of the program. These promotional materials will provide a means for the customer to make the discounted purchase and provide Duke Energy Carolinas the information about who purchased the bulbs.

Delivery Organization(s): CFLs will be marketed and sold through major retailers and via the Web at online stores. Customers will be given incentive coupons via mass mailings or via our corporate Web site.

<u>Residential Smart Saver® Air Conditioners Incentive Program</u>
This program will provide incentives to customers, builders, and air conditioning contractors (HVAC dealers) to promote the use of high-efficiency air conditioners with electronically commutated fan motors ("ECM"). The program is designed to improve the efficiency of air conditioning systems in new homes and for replacements in existing homes.

Eligibility: Duke Energy Carolinas residential customers in new or existing owner-occupied residences, condominiums and mobile homes.

Customer Incentive: Incentives (rebates) will be paid to the builder (new homes) or for existing homes, part to the homeowner and part to the HVAC contractor. The rebate per air conditioner unit is $300.00.

Marketing: This program will be promoted by targeted direct marketing offers to HVAC contractors and homeowners with aging equipment.

Delivery Organization(s): Energy efficient heat pumps and air conditioners will be sold and installed by qualified dealers.

Low Income Services

Program: The purpose of this program is to assist low income residential customers with energy efficiency measures to reduce energy usage through energy efficiency kits or through assistance in the cost of equipment or weatherization measures.

Eligibility: Weatherization and equipment assistance are available for up to 5000 existing, individually metered, single-family, owner-occupied all-electric residences, condominiums or mobile homes served by Duke Energy Carolinas. Household income is at least 150%, but not more than 200% of the federal poverty level. Low income customers who fail to qualify based on income level are still eligible to receive an energy efficiency kit through participating assistance agencies.

Customer Incentive: For weatherization and equipment assistance, a home energy audit will be performed. Funds are available for weatherization measures and/or refrigerator replacement with an ENERGY STAR® appliance and/or heating system replacement with a 14 or greater SEER heat pump. Energy efficiency kits will be available through assistance agencies to other low income customers.

Marketing: Direct mail will be used to target customers for weatherization and equipment assistance. Customers will be directed to contact their local weatherization organization. For the energy efficiency kits, there will be no marketing. The kits will be provided by assistance agencies to their clients.

Delivery Organization(s): Installation of weatherization measures or equipment replacements may be installed through vendors that will be chosen through a competitive bid process and/or coordinated through local agencies that administer state weatherization programs and payments will be made to the agency on behalf of the customers.

Energy Efficiency Education Program for Schools

Program: The purpose of this program is to educate students about sources of energy and energy efficiency in homes and schools through a curriculum provided to public and private schools. This curriculum includes lesson plans, energy efficiency materials, and energy audits.

Eligibility: This program is available to all fourth (4^{th}) and ninth (9^{th}) grades in public and private schools located within the Duke Energy Carolinas service territory or schools which serve students who live within Duke Energy Carolinas service territory.

Customer Incentive: Beyond the curriculum, this program provides students the ability to perform an online energy audit of their homes and the ability to assist in an energy assessment of their school. Each student who completes a home energy audit will receive a home energy measure (e.g., package of 6 compact fluorescent light bulbs ("CFLs"), an energy efficiency kit for the home.)

Marketing: This program will be promoted through teacher workshops.

Delivery Organization(s): The Company's current plan it to deliver this program through a vendor that will be chosen through a competitive bid process. Software and Web site development for the online portion of the program will be developed and installed by a selected vendor.

Power Manager

Program: Power Manager is a residential load control program. Participants receive billing credits during the billing months of July through October in exchange for allowing Duke Energy Carolinas the right to cycle their central air conditioning systems and, additionally, to interrupt the central air conditioning when the Company has capacity problems.

Eligibility: Available to individually metered residential customers receiving concurrent service from the Company on Schedule RS, RE, or ES, who are not served under Rider SCG. Customers currently on Rider LC for air conditioning control will be given an appropriate notice to decide if they wish to migrate to Power Manager or leave Rider LC. Customers who have not migrated will be removed from rider LC with appropriate notice. Upon the expiration of all advance notices, Rider LC will be cancelled.

Customer Incentive: For participation in the program, customers will receive bill credits of $8.00 per month for the summer billing months of July – October.

Marketing: Power Manager program information will be provided in bill inserts and on Duke Energy Carolinas' Web site, but the program will not be actively marketed until two-way communication is available.

Delivery Organization(s): Customers can sign up for the program by calling the Company's customer service representatives. Load control switches will then be installed by a third-party hired by Duke Energy Carolinas. Customers will be charged an installation fee.

Non-Residential Energy Assessments

Program: The purpose of this program is to assist non-residential customers in assessing their energy usage and providing recommendations for more efficient use of energy. The program will also help identify those customers who could benefit from other Duke Energy Carolinas Energy Efficiency non-residential programs.

The types of available energy assessments are as follows:

- Online Analysis. The customer provides information about their facility. Duke Energy Carolinas will provide a report including energy saving recommendations.

- Telephone Interview Analysis. The customer provides information to Duke Energy Carolinas through a telephone interview after which billing data, and if available, load profile data, will be analyzed. Duke Energy Carolinas will provide a detailed energy analysis report with an efficiency assessment along with recommendations for energy efficiency improvements. A 12-month usage history may be required to perform this analysis.

- On-site Audit and Analysis. For customers who have completed either an Online Analysis or a Telephone Interview Analysis, Duke Energy Carolinas will cover 50% of the costs of an on-site assessment. Duke Energy Carolinas will provide a detailed energy analysis report with an efficiency assessment along with recommendations, tailored to the customer's facility and operation, for energy efficiency improvements. The Company reserves the right to limit the number of off-site assessments for customers who have multiple facilities on the Duke Energy Carolinas system. Duke Energy Carolinas may provide additional engineering and analysis, if requested and the customer agrees to pay the full cost of the additional assessment.

Eligibility: Available to Duke Energy Carolinas served demand metered non-residential customers.

Customer Incentive: The customer's incentive is the subsidized cost of assessment work. Customers will also be presented with opportunities to participate in other Company energy efficiency programs as a result of the assessments.

Marketing: This program will be promoted primarily through three main channels – Duke Energy Carolinas' business relations managers, direct mail (letter), and online newsletter.

Delivery Organization(s): Assessments will be provided by Duke Energy Carolinas or a qualified third-party.

Smart $aver® for Non-Residential Customers

Program: The purpose of this program is to encourage the installation of high-efficiency equipment in new and existing non-residential establishments. The program will provide incentive payments to offset a portion of the higher cost of energy efficient equipment. The following types of equipment are eligible for incentives: high-efficiency lighting, high-efficiency HVAC equipment, high-efficiency motors, and high-efficiency pumps. Customer incentives may be paid for other high-efficiency equipment as determined by the Company to be evaluated on a case-by-case basis.

Eligibility: New or existing non-residential facilities served by Duke Energy Carolinas with prior approval from the Company.

Customer Incentive: Incentives are available for a percentage of the cost difference between standard equipment and higher efficiency equipment, up to 50%. The Company may vary the percentage incentive by type of equipment and differences in efficiency in order to provide the minimum incentive needed to drive customers to purchase higher efficiency equipment and to encourage additional improvements. Over the life of the program, incentives may be reduced as customers naturally move to purchase higher efficiency equipment. There will be a limit on the total amount of incentives available to an individual customer.

Marketing: This program will be marketed to specific segments of non-residential customers and market providers through direct marketing (e.g., mail, e-mail, bill inserts, Web site) and direct contact with market providers.

Delivery Organization(s): The incentive process will be handled by a third-party vendor.

PowerShare®

Program: PowerShare® is a non-residential curtailable program consisting of two options, an Emergency Option and a Voluntary Option.

Emergency Option customers will receive capacity credits monthly based on the amount of load they agree to curtail during utility-initiated emergency events. Customers enrolled in the Emergency Option will also be enrolled in the Voluntary Option and will be eligible to earn additional credits.

Voluntary Option customers will be notified of pending emergency or economic events and log on to a Web site to view a posted energy price for that particular event. Customers will then have the option to nominate load for the event and will be paid the posted energy credit for load curtailed.

Eligibility: Available, at the Company's option to non-residential customers on Schedule G, GA, I, OPT. Only the Emergency Option will be available, at the Company's option, to non-residential customers on HP. There will be a minimum and maximum amount of load for which the customer may contract to curtail. Customers currently on Rider IS and SG will be given appropriate notice to decide if they wish to be migrated to PowerShare® or leave rider IS or SG.

Customer Incentive: Emergency Option Customers will receive capacity credits $3.50 per kW for loads they agree to curtail during a utility-initiated event. For actual energy curtailed during an event, Emergency Option Customers will receive a bill credit of $0.10 per kWh and Voluntary Option customers will receive a percentage of the Hourly Price quoted under the Company's "Hourly Pricing for Incremental Load" Schedule.

Marketing: PowerShare® may be marketed using various means including, but not limited to, direct mail offers to customers, bill inserts, e-mail, and promotion on the Company's Web site.

Delivery Organization(s): Duke Energy Carolinas will convert customers from the previous Rider IS and Rider SG onto this program and may add other customers who wish to participate.

Efficiency Savings Plan (Pilot)

Program: This is a pilot research and development program designed to learn about and develop a financing structure that helps customers overcome up-front capital outlays for energy efficiency equipment financing. This program will allow residential and non-residential customers to participate in energy efficiency with no up-front payment. Customers would pay for these products through an added charge to their power bill which would be offset by the savings on their bill from the reduction in energy use realized from their participation in energy efficiency. Ideally, the additional charge would remain with the facility, not the customer.

Advanced Power Manager Program (Pilot)

Program: This is a pilot research and development program to evaluate new standard service offers where customers can participate in energy efficiency and demand response without disrupting their lifestyle or normal business operations This program would incorporate lessons learned from other Duke Energy utility pilot programs that envision: (1) a technology trial to determine the operating characteristics of the equipment and prove its viability; (2) a customer trial to determine the appropriate offer structure that benefits customers and accomplishes program goals; and (3) a product roll-out, provided the technology and customer trials are successful. Additionally, this program will test demand response load aggregation concepts for non-residential customers. New offers and rate structures developed for this pilot will be filed with the Commission for approval.

ATTACHMENT B

Energy Efficiency Rider Description

Rider EE (SC) Energy Efficiency Rider ("Rider") is designed to allow Duke Energy Carolinas to collect each year a level of revenue equal to 90% of the avoided cost (capacity and energy). The Rider, attached hereto as Attachment B-1, is made up of two components – Projected Avoided Costs ("AC") and a Balance Adjustment to True-Up the Projected Avoided Costs based on Actual Results ("BA"). The "Rider Period" is the 12 month period over which the Rider will apply. The Rider calculations are made separately for residential and non-residential customers to establish separate charges for the two classes of customers. The residential charge is calculated based on the avoided cost of programs available to residential customers and the non-residential charge is calculated based on the avoided costs of programs applicable to non-residential customers.

The inputs used to calculate the Rider will be taken from sources that are filed with the Public Service Commission of South Carolina ("Commission"), including the information used by the Company to calculate avoided costs contained in Rate Schedule PP (SC) for Duke Energy Carolinas' South Carolina qualifying facilities under the Public Utilities Regulatory Policies Act of 1978 and the Company's Integrated Resource Plan ("IRP"). The information used by the Company to calculate Rate Schedule PP (SC) (approved by order of the Commission in Docket No. 95-1192-E on August 23, 2007), was also used for the initial Rider EE calculation. One exception for the initial Rider is the use of an alternative avoided energy cost due to the timing of the filing of this Application. For future riders, the avoided energy cost will be calculated through the IRP process.

The calculation of the avoided capacity and energy revenue requirements ("ACC" and "ACE") is designed to provide to Duke Energy Carolinas 90% of the return of and on the supply-side investment the Company would have made to provide the same capacity and energy over the same life as the measures and programs included within the portfolio of energy efficiency programs.

The portfolio of programs includes a collection of energy efficiency measures which represent individual efficiency technologies available to customers. Each program or measure has a unique set of characteristics, including cost, operational life, and capacity and energy impacts. ACC and ACE are calculated for each vintage year of each program/measure separately. A vintage year is the beginning year of participation for a group of participants. A group that participates in a program in 2008 is in the 2008 "vintage year", but will continue to produce savings due to measures installed over their assumed life. In the following year, results will be experienced from both the 2008 and 2009 vintage years. With each succeeding year, a new ACC and ACE are calculated for that year's capacity and energy impacts for each vintage of each program/measure.

When evaluations of programs and measures are complete, the true-up mechanism will ensure the Company's revenues are adjusted such that the Company is paid only for results achieved. The Balance Adjustment mechanism calculates the revenues actually collected for the evaluated programs and compares that to the revenue requirement that would have been calculated at the time if the actual results had been known.

The difference is the Balance Adjustment, which can be positive or negative. The Company is seeking approval of the Rider which includes the formula for calculation of the Rider as well as the charge to be effective for the first year of the Rider. The Rider charge is designed to recover the Revenue Requirement set forth on page 3 of the Application for Year 1. The Company is not seeking approval at this time for the Revenue Requirements set forth in Years 2 through 4 as shown on page 3 of the Application. Instead, the Rider will be updated annually based on updated projections of results and actual results achieved by the Company.

RIDER EE (SC)
ENERGY EFFICIENCY RIDER

APPLICABILITY (South Carolina Only)
Service supplied under the Company's rate schedules are subject to approved energy efficiency adjustments over or under the Rate set forth in the approved rate schedules as determined by the following formula:

EEA (residential) =

$$\frac{\textbf{AC + BA, as assigned to the residential class of customers}}{\mathbf{S_{res}}}$$

EEA (non-residential) =

$$\frac{\textbf{AC + BA, as assigned to the non-residential class of customers}}{\mathbf{S_{non\text{-}res}}}$$

Where,
EEA = Energy Efficiency Adjustment
S = Projected kWh Sales for the Rider Period for the class (residential or non-residential) of SC retail customers
AC = Avoided Cost (Capacity and Energy) Revenue Requirement
BA = Balance Adjustment

EEA is calculated for a 12 month period, referred to as the **Rider Period**.

AC = (ACC + ACE) X 90% X SC Allocation Percentage

Where,
ACC = Avoided Capacity Revenue Requirement
ACE = Avoided Energy Revenue Requirement
90% = the percentage of avoided costs to be collected through the Rider
SC Allocation Percentage = Projected kWh Sales for the Rider Period for the class (residential or non-residential) of SC retail customers / Projected kWh Sales for the Rider Period for the class (residential or non-residential) of NC and SC retail customers.

ACC = the sum of (DC + ROE x ACI) for each vintage year of each measure/program

Where,
Measure/program: Programs are a collection of energy efficiency measures which represent individual efficiency technologies available to customers. Each program or measure has a unique set of characteristics, including cost, operational life, and capacity and energy impacts. ACC is calculated based on the assumed life of each program or measure.

Vintage: ACC is calculated for each program/measure separately. A vintage year is the beginning year of participation for a group of participants. A group that participates in a program in 2008 is in the 2008 "vintage year", but will continue to produce savings due to measures installed over their assumed life. In the following year, results will be experienced from both the 2008 and 2009 vintage years. With each succeeding year, a new ACC vintage is calculated for that year's incremental capacity and energy impacts.

DC = Depreciation of the Avoided Capital Investment **(ACI)**, calculated using straight-line depreciation over the life of the measure/program for each vintage year of the program.

$$\textbf{ROE} = \frac{\textbf{Cost of Equity} \times \textbf{Equity Percentage}}{\textbf{(1-Effective Tax Rate)}}$$

Where,
Effective Tax Rate = Composite Federal and State Income Tax Rate from the **Avoided Cost Proceeding**
Equity Percentage = equity as a percentage of total capitalization from the **Avoided Cost Proceeding**
Cost of Equity = ROE most recently approved by the PSCSC in the last general rate case.

ACI = Present Value of the sum of the annual avoided capacity total **(AACT)** less accumulated depreciation (Sum of **DC** for current year and all previous years for that vintage) for each vintage of each measure/program over the life of the measure/program, with the **Pre-Tax Weighted Cost of Capital** as the discount rate.
Pre-Tax Weighted Cost of Capital will be based on the capital structure, cost of long term debt, and effective tax rate as included in the **Avoided Cost Proceeding** and the **Cost of Equity.**

Values from the **Avoided Cost Proceeding** are determined as follows: the values proposed by Duke Energy Carolinas in South Carolina in the most recently filed avoided cost proceeding, until an Order approving the filing is issued by the Commission. Following a Commission Order on the Proceeding, the values approved by the Commission up until a new avoided cost proceeding filing is made.

Where,
AACT = PD (in kW) x AAC (in $/kW-year), expressed for each vintage for each year in nominal year $s

Where,
PD = Projected Demand impacts for the measure/program by vintage year
AAC = Annual Avoided Capacity Costs (the Transmission Capacity Cost with Performance Adjustment Factor 1.2) from the **Avoided Cost Proceeding**, escalated using the **Escalation Factor**, to obtain nominal year $ values for each year of the measure/program.
Escalation Factor = escalation factor used in **Avoided Cost Proceeding** for escalation of capital costs.

ACE = the sum of (DE + ROE x AEI) for each vintage year of each measure/program

Where,
DE = Depreciation of the Avoided Energy Investment **(AEI)**, calculated using straight-line depreciation over the life of the measure/program.
AEI = Present Value of the sum of the annual avoided energy total **(AAET)** less accumulated depreciation (Sum of **DE** for current year and all previous years for that vintage) for each measure/program over the life of the measure/program, with the **Pre-Tax Weighted Cost of Capital** as the discount rate.

Where,
AAET = PE (in kWh/year) x AEC (in $/kwh/year), expressed for vintage for each year in nominal year $s

Where,
PE = Projected Energy impacts for the measure/program by vintage year
AEC = Annual Avoided Energy Costs from modeling results that calculate the annual energy costs for the Duke Energy Carolinas system with and without the portfolio of energy efficiency programs. The difference between the energy costs for the portfolio is assigned to individual program/measure vintage years to determine the Annual Avoided Energy Costs for the program/measure by vintage year. The modeling is consistent with the methodology used for energy cost determination in the Avoided Cost proceedings and Integrated Resource Plans.

BA = RREP - AREP

Where,
AREP = Actual Revenues from the Evaluation Period (which reflect 90% of avoided costs) from South Carolina retail customers
RREP = Revenue Requirements for the Evaluation Period
Evaluation Period = the time period to which the evaluation results apply.

Where,

$$\textbf{AREP} = \frac{[\text{EE(Evaluation Period) x AKWH}] - \text{BA(Evaluation Period) X RREP}}{\text{AC(Evaluation Period)}}$$

Where,
EE(Evaluation Period) = Rider EE (cents/kwh) for the class of customers in effect during the evaluation period
AKWH = actual kWh sales for the evaluation period for the class
BA(Evaluation Period) = BA for the class of customers in effect during the Evaluation Period.

RREP = 90% x SC Allocation Percentage x ((∑ACC(Evaluation Period) x AD/PD(Evaluation Period)) + ∑(AEC (Evaluation Period) x AE/PE(Evaluation Period)), for each measure/program and then summed

Where,

ACC (Evaluation Period) = Avoided Capacity Revenue Requirement as calculated for the Evaluation Period for the measure/program

AD = Actual Demand results as validated by program evaluation for the measure/program

PD (Evaluation Period) = Projected Demand results as calculated for the Evaluation Period for the measure/program

AEC (Evaluation Period) = Avoided Energy Revenue Requirement as calculated for the Evaluation Period for the measure/program

AE = Actual Energy results as validated by program evaluation for the measure/program

PE (Evaluation Period) = Projected Energy results as calculated for the Evaluation Period for the measure/program

EFFECT ON RATES

As a result of the Commission's (date) Order in Docket No. ____________, the Energy Efficiency Cost Recovery Rider is included in the current rate schedules effective for service on and after (date). The effect of the Commission's Order, including revenue related taxes,, is an increase of 0.1110 cents per kWh on residential rate schedules and 0.0892 cents per kWh on nonresidential rate schedules.

USE OF RIDER

Since adjustments are already included in the Rates of the Company's current rate schedules which are effective for service on and after (date), this Rider should not be used in addition to such rate schedules for bill calculations.

ATTACHMENT C

Plan for Evaluation, Monitoring and Verification

Duke Energy Carolinas, LLC ("Duke Energy Carolinas") believes that successful, reliable and cost-effective energy efficiency programs require valid monitoring and verification activities to: 1) assure that measures are installed and tracked properly; 2) verify or revise energy impacts; 3) monitor and ensure customer satisfaction; and 4) establish independent third-party evaluations and reviews to confirm energy impacts and to improve program delivery, efficiency and effectiveness. For monitoring and verification of standard programs (non-pilot), the following general approach will be used:

Paper and Electronic Verification

- Paper or electronic verification will be completed on all applications for incentives by customers. As part of the application process, specific customer and measure data will be requested from applicants. Data requested will vary depending on the program, the measure, the equipment and the delivery of the application. Customers and/or contractors will be contacted for clarification and completion of the application if they fail to provide necessary information. Incentives will only be processed once verification is complete and information is entered into the electronic tracking systems. Verification information and all applications will be held on file by Duke Energy Carolinas.

Field Verification and Monitoring

- Field verification and monitoring, in most cases, will occur on customer premises using randomly selected samples of approximately 5% of installations. On-site visits will verify the installation of the claimed equipment in the proper application, confirm appropriate contractor or vendor processes and performance, and bring to light potential discrepancies or process improvements for the programs. Sample size will be larger for very large projects with significant incentives or energy impacts at risk. The size of such samples will be commensurate with the increased load savings as determined by Duke Energy Carolinas. Field training and support will be given to auditors performing assessments, to ensure quality both for communications and technical capabilities.

Customer Satisfaction Surveys

- Customer satisfaction surveys will be utilized to monitor satisfaction with program delivery and design, seek additional improvements to the program, and potentially uncover latent problems or issues with the measure/installation.

System Performance Tests

- System performance tests for load control resources will be conducted periodically to ensure that operational systems are working correctly, and that the projected load reductions are reliably available when needed. Load research metering samples and tracking will also be used to verify energy reductions.

If a problem is found with the installations or operations, the contractor and customer will be notified for correction. In addition, subsequent work or projects performed by that contractor will be monitored until Duke Energy Carolinas is satisfied that the installations or projects are being completed according to program specifications and operational standards. If the problems are not resolved to the satisfaction of Duke Energy Carolinas, that contractor, at Duke Energy's discretion, may be eliminated from the program.

The Company will employ independent third parties to conduct the impact evaluation studies. Such third parties will complete the evaluation studies and/or review databases, information, verifications or studies completed by Duke Energy Carolinas, to ensure that standard process and impact evaluation protocols[5] are employed to accomplish these tasks.

Duke Energy Carolinas estimates that 5% of total program costs will be required to adequately and efficiently perform evaluations, monitoring and verification. The industry standard for evaluation costs is typically 3% to 5% of total program spending. Chart 1 below generally outlines the expected timeframes and completion of evaluations, assuming a January 1, 2008 start date; however, final scheduling will be based on actual program initiation and realized participation rates and as such Chart 1 below may be modified or revised accordingly. Evaluation studies may include methods such as loggers to capture appliance usage times, load research metering for hourly load analysis,

[5] Standard protocols include the International Performance Measurement and Verification Protocol and the California Evaluation Framework.

statistical pre- and post-billing analysis using comparison control groups, engineering analysis and modeling, reference and comparisons to impact studies conducted in other regions for similar programs, phone and online interviews, and other methods reviewed within the International Performance Measurement and Verification Protocols and the California Evaluation Framework.

Program	Evaluation Type	Earliest Timeframe for Report – Months after program start	Latest Timeframe for Report – Months after program start
Residential Energy Assessments – Mail-in	Process	18	24
	Impact	24	36
Residential Energy Assessments – Online	Process	18	24
	Impact	24	36
Residential Energy Assessments – In-home	Process	18	24
	Impact	24	36
Residential Smart $aver®	Process	12	24
	Impact	18	30
Residential Low-Income Services	Process	18	24
	Impact	24	36
Energy Efficiency Education Program for Schools	Process	12	24
	Impact	18	24
Residential Power Manager	Impact	24	36
Non-Residential Energy Assessments – Online	Process	18	24
	Impact	24	36
Non-Residential Energy Assessments – Phone	Process	18	24
	Impact	24	36
Non-Residential Energy Assessments – On-site	Process	12	18
	Impact	24	36
Non-Residential Smart $aver®	Process	18	24
	Impact	24	36
Non-Residential PowerShare®	Impact	24	36
Research – Advanced Power Manager	Research Plan	24	36
Research – Efficiency Savings Plan	Research Plan	12	18